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## COMPLETE SPECIFICATION

## Improvements relating to the Treatment of the Human Body

I, PETER GILHEAD, a British Subject, of 44, Princes Avenue, Church End, Finchley, London, N.3. do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention is concerned with the treatment of the human body and has particular reference to the practising of a method of healing akin to that known as Acupuncture. Practitioners of acupuncture have hitherto explored a person's skin by applying pressure by means of a forefinger to seek out areas which are very tender, which when located are subjected to puncturing by means of fine needles of various metals. This exploratory action may not, except possibly after long experience, prove very accurate. It is an object of this invention to provide improved apparatus for more rapidly and more accurately locating "acupuncture" points, which, for centuries, have been believed to number nearly 800. Another object of the invention is to provide such improved apparatus which having located a pressure-sensitive acupuncture point (the position of which is an indication to the nature of an ailment requiring treatment) may then be used to apply pain-relieving treatment; that is, the same apparatus is used for diagnosis and also for curative or sedative treatment.

It is, however, a characteristic feature of apparatus according to this invention that it does not involve actual puncturing of the skin and the muscle beneath it, as in the centuries-old needle treatment, but relies upon the setting-up of accurately localised and intense pain which, for a short or longer period at the discretion of the practitioner, simulates the feeling of the skin being pierced by a sharp or hot needle; this simulated feeling of puncturing is effected by the use of electrical means.

The expression "acupuncture" is thus

somewhat inapt in connection with the present invention and in order to emphasise the non-puncturing treatment it is proposed to use hereafter the term "acupoint" apparatus.

For the purpose of using acupoint apparatus, that is, the apparatus according to the invention for diagnostic and sedative treatment it is unnecessary for the practitioner to acquire any detailed knowledge of the art of acupuncture. It is believed that for general practitioners and most other persons using the apparatus it will suffice if they are able to locate far less than the total number of acupuncture points believed to exist, and information as to this lesser number may be made readily available in chart form; an example of one such chart will be explained later.

A selection of 116 points has been made by the present inventor which are associated with so-called meridians, which may be thought of as lines linking a number of points together; there are fourteen different meridians on the human body, on twelve of which lie the 116 points referred to; the meridians, however, are bilateral—that is, they are duplicated (in mirror-image fashion), so that 232 points are thus accounted for. These points are not only capable of releasing physical tension or pain, but also directly affect psychological conditions.

Acupoint apparatus takes advantages of changes in resistance to the passage of low frequency electric current along certain paths through the human body, and therefore makes use of resistance sensitive means whereby such a path of low resistance may be established between a relatively fixed electrode, hereinafter referred to as the saturator (and conveniently in the form of a rod-like metallic body held in the patient's hand) and a movable electrode in the form of a probe by which the practitioner traces a sensitive point on the low-resistance path—which corresponds to a particular meridian.

The improved apparatus according to the

invention comprises electrical supply means having a pair of output electrodes, one (the saturator) being arranged to be fixed relative to the patient's body and to make contact therewith over a relatively large area and the other being a point probe which can be moved over the body, and resistance sensitive means powered by the supply means and operative to produce an indication of any low resistance path across the electrodes whereby to identify points or locations of the body corresponding to particular ailments.

It will be understood that the operating frequency of the apparatus must be relatively low, compared with the frequencies commonly employed in diathermic apparatus, for example. The upper limit of the range of operating frequencies useful for the present purpose cannot be precisely defined, but it lies well within the audio range. Within the useful range of frequencies different paths through the patient's body present substantially different resistances according to whether the point probe is placed at or away from an "acupuncture" point, whereas at any frequency above this range no such changes of resistance can be detected. In this specification, the term "low frequency" is used to mean an operating frequency within the useful range.

One form of acupoint apparatus is illustrated, by way of example, in Figure 1 of the drawings accompanying the provisional specification; Figure 2 is one of a series of charts for identifying ailments associated with sensitivity of points along a meridian.

The components of the electrical apparatus shown in Figure 1 are of conventional form and the oscillator circuit, or electrical supply means, conveniently comprises three transistors 11, 12 and 13, a frequency control switch 14, an "intensity" control device 15, and the necessary resistors and capacitors, which are not individually identified by reference characters. The transistors 11 and 12 are arranged to operate as a Wien oscillator and the output is taken from the emitter of transistor 12 to the base of transistor 13 operating as a Class A amplifier. The collector circuit of the transistor 13 includes the primary winding of an output transformer 16. Associated with the secondary winding of transformer 16 and coupled thereby to the output of the oscillator are a transducer 17, an "audible" control device 18, a visual indicating means 19 (such as a neon lamp), the above-mentioned probe 20 and the so-called saturator 21, already referred to; instead of a saturator 21 to be held in the patient's hand, a wristband connection may be used. Suitable values for the various resistors and capacitors are indicated in Figure 1.

The oscillator is adapted to operate at two frequencies, one for "activating" at approximately 800 c/s and the other for "sedation"

at approximately 1500 c/s. The required operating frequency is selected by means of the frequency control switch 14 which, when closed, shunts part of the resistance in the emitter circuit of the transistor 11 and causes the circuit to oscillate at the higher frequency. The output voltage is sufficient to strike the neon signal lamp 19 while the output is unshunted. The apparatus is used by "connecting" one side of the output circuit to the patient by having the patient grasp the saturator 21 while the practitioner moves probe 20 lightly over the skin of the patient in the approximate vicinity of likely "points" until a point is located which is "sensitive" to the exploring action. Since the located point has a relatively low resistance as compared with the patient's skin as a whole a small current will flow through the patient from saturator 21 to probe 20, thereby providing a shunt path for current through the transducer 17 and said lamp 19. The fall of volts across lamp 19 gives the required visible indication of point location. Audibility of sound generated by transducer 17 may be adjusted by audible control device 18. Sensing or exploring is effected with a probe having a gold feeler and after point location a sedative or "tonic" treatment is applied by changing to a silver feeler.

Figure 2 is a chart of what is known as meridian V which is concerned with ailments arising from abnormal blood circulation. For example, point 2 on meridian V indicates weakening eyesight; point 3, affections of the heart; point 4, restlessness; point 5, hypertension; point 6, agitation of heart; point 7, angina; point 8, arterial hypertension, whereas point 9 is sensitive for all heart affections. The setting of switch 14 for application of the lower frequency mentioned results in a "toning" action for strengthening or activating the flow through the body of forces, the nature of which is not precisely known. During this action the gold feeler is used in probe 20 and it is convenient to mark this switch position as TONE; the action continues for a period of four to five minutes, according to the level of pain intensity the patient can tolerate. When sedative or tonic treatment is to be applied the silver feeler is fitted to probe 20, and the switch 14 is moved to its other position, conveniently marked DISPERSAL; this treatment may be applied, for example, at 10 second intervals for 1 to 2 minutes. It will be understood, however, that TONE and DISPERSAL periods may vary appreciably.

In a modified form of the apparatus the output circuit includes a meter for recording the output current. The ends of the secondary winding of transformer 16 are taken to the probe 20 and saturator 21 respectively, and a microammeter having a range of say 50 microamps is inserted in series with the saturator. A variable resistance is also placed in

series with the saturator to act as a sensitivity control. The transducer and neon lamp are connected in series with one another and across the transformer secondary winding.

5 WHAT I CLAIM IS:—

1. Apparatus for diagnosing and/or treating human ailments by passing low frequency electric current along certain paths in a patient's body, comprising electrical supply means having a pair of output electrodes, one (the saturator) being arranged to be fixed relative to the patient's body and to make contact therewith over a relatively large area and the other being a point probe which can be moved over the body, and resistance sensitive means powered by the supply means and operative to produce an indication of any low resistance path across the electrodes whereby to identify points or locations of the body corresponding to particular ailments.

2. Apparatus according to Claim 1 wherein the one electrode, that is the saturator, is a metal rod arranged to be grasped by the patient.

3. Apparatus according to Claim 1, wherein the one electrode, that is the saturator, is adapted to be strapped to the patient's wrist.

4. Apparatus according to any preceding claim, wherein said other electrode is a probe having a gold or silver feeler.

5. Apparatus according to any preceding claim, wherein the electrical supply means comprises an electronic oscillator.

6. Apparatus according to Claim 5 wherein the electronic oscillator has two operating frequencies and includes a switching device operative to select the desired operating frequency.

7. Apparatus according to Claim 5 or Claim 6, wherein the resistance sensitive means is coupled to the output of the oscillator and connected in shunt with the electrodes.

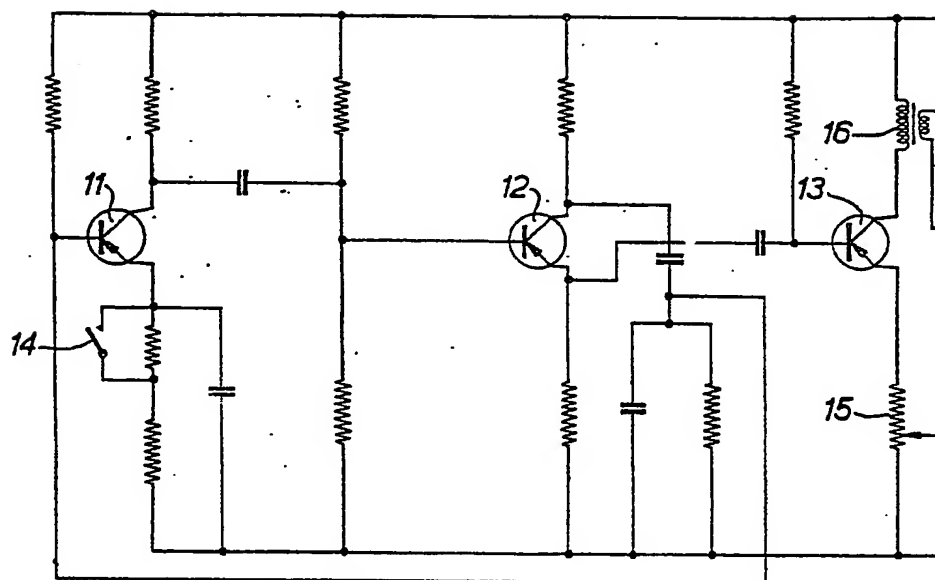
8. Apparatus according to Claim 7, wherein the resistance sensitive means includes a transducer operative to produce an audible indication of said low resistance path.

9. Apparatus according to Claim 7 or Claim 8, wherein the resistance sensitive means includes a neon lamp operative to produce a visual indication of said low resistance path.

10. Apparatus for diagnosing and/or treating human ailments by passing low frequency electric current along certain paths in a patient's body, substantially as herein described with reference to Figure 1 of the drawing accompanying the provisional specification.

HOLLINS & CLARK,  
Chartered Patent Agents,  
Agents for the Applicant.

FIG. 1.



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COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of  
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FIG. 1.

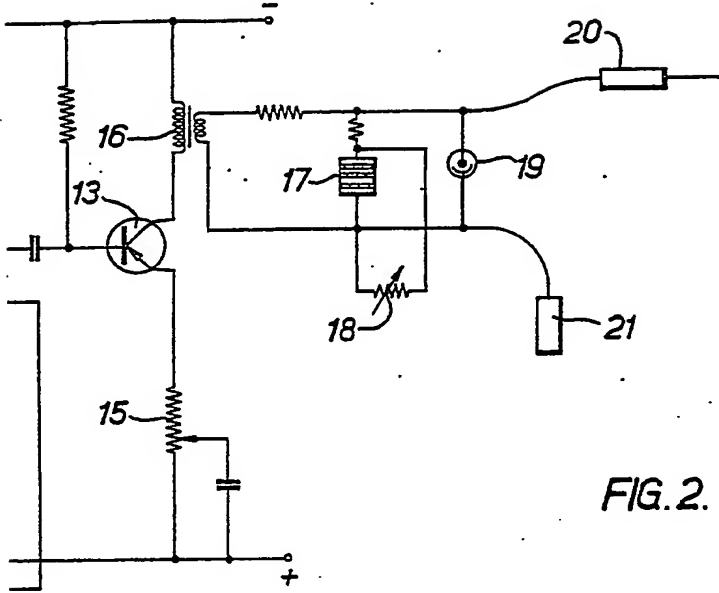
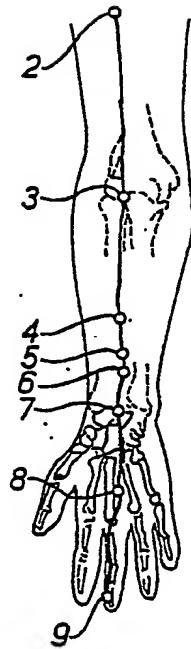
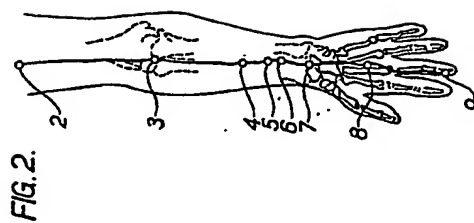
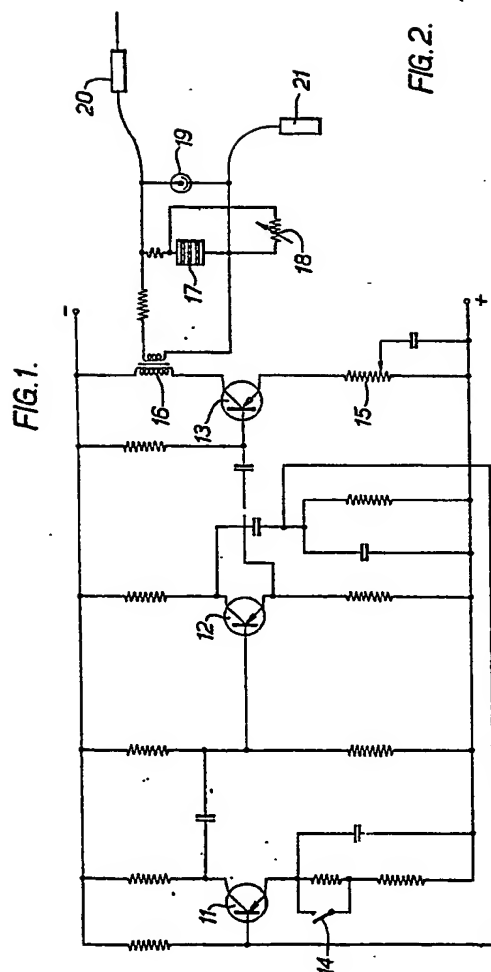


FIG. 2.





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